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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Philip M. Walker

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12/13/2004

HEWLETT-PACKARD COMPANY

Intellectual Property Administration

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EXAMINER

CHO, HONG SOL

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/846,407	Applicant(s) WALKER ET AL.	
	Examiner Hong Cho	Art Unit 2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5, 6, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 5, it is unclear what “a public network protocol” is. The term “public protocol” is a term used to specify a protocol that is generally known to the public.

Re claim 6, it is unclear what “a private network protocol” is. The term “private protocol” is a term used to specify a protocol that is especially known and used by particular users.

Re claim 13, it is unclear how to route the packet without considering the contents of the received packet. The routing device routes the packet to the destination based on the destination field of the received packet.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

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patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 7-10, 12, 14-21, and 23-25 are rejected under 35 U.S.C. 102(e) as being unpatentable over Strahm et al (U.S 5732214), hereinafter referred to as Strahm.

Re claims 1, 15, and 24, Strahm discloses Classifying Forwarding Element (CFE, *an endpoint of a tunnel*) classifying the packet, encrypted in tunnel mode (*the tunnel being configured by said source agent*, page 2, paragraph 0032, lines 1-2), sent from Control Element (CE, *source agent*) by checking if the packet is received from the same traffic stream or the SA as previously received packets (*authentication logic configured to receive packets sent from a source agent to an endpoint of a tunnel and to determine whether a SA of a packet received corresponds to said source agent*, page 2, paragraph 0032, lines 5-11). Strahm discloses routing Internet Protocol security (IPsec) traffic based on the classification parameter (abstract). Classification parameters include IPsec Security Parameter Index (SPI) information that is uniquely associated with a security association (SA) (*making a routing decision for each authenticated packet that is constrained based on the SA of the authenticated packet, selecting a routing destination for each authenticated packet, and routing the packet based on said routing decision*, abstract, lines 1-5).

Re claim 2, Strahm discloses selecting the routing destination based on routing decision (page 1, paragraph 0009, lines 1-2).

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Re claims 3, 16, and 25, Strahm discloses Decrypting Forwarding Element (DFE) decrypting the received packet using the encryption or keys included in the SA (*decapsulate received packets while SA of the packet is preserved*, page 3, paragraph 0036, lines 1-5) and forwarding the packet to its next stop (*contents of a payload of an authentication packet are routed to the selected routing destination*, page 2, paragraph 0031, lines 1-9).

Re claims 4 and 17, Strahm discloses processing Internet Protocol security (IPsec) traffic (abstract).

Re claim 5, as best understood, Strahm discloses public IPsec network protocol.

Re claims 7, 8, 18 and 19, Strahm discloses routing or forwarding a packet to layer 3 device, router (page 2, paragraph 0031, lines 4-9).

Re claims 9, 10, 20 and 21, Strahm discloses forwarding a packet to layer 2 device, switch (page 2, paragraph 0031, lines 4-9).

Re claims 12 and 23, Strahm discloses a data layer link device forwarding network traffic based on information included in the second layer of OSI networking model (page 2, paragraph 0024, lines 9-12).

Re claim 14, Strahm discloses making routing decision based on Security Parameter Index (SPI, *authentication ID*) associated with a SA (page 1, paragraph 0010, lines 1-7).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strahm.


Re claims 11 and 22, Strahm discloses a switch forwarding network traffic based on information included in the second layer of OSI networking model, but fails to teach a switch comprised by a Virtual Local Area Network (VLAN). However, it is well known in data communications that virtual network created by a switch provides secure communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement a VLAN into Strahm when a switch is used to forward a packet with security.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- US 2001/0009025 to Ahonen discloses secure communication method in VPN
 - US 2002/0062344 to Ylonen et al. discloses secure tunneling of data between virtual routers
 - US 2001/0042201 to Yamaguchi et al. discloses security communication

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hong Cho
Patent Examiner
12-01-2004



RICKY NGO
PRIMARY EXAMINER